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Jealousy: Its Emotional Components and its Relationship to Situational Versus General Needs.

Yola Harrison

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Yola Harrison

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University of North Florida
College of Arts and Sciences

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[redacted]
Minor Chamblin, Ph.D.
Committee Chairperson

[redacted]
Jerzy Karylowski, Ph.D.
Second Reader

[redacted]
Russell Jones, Ph.D.
Department Chairman

Table of Contents

List of Tables

Abstract

Male and female emotional reactions to jealousy arousing situations were investigated. These reactions were studied with relation to subjects' general and relationship needs. Subjects' expressed emotions, their general needs, and their relationship needs were measured. The results indicated that: 1) Females express stronger emotions in a jealousy situation, however, the range of expressed emotions for both males and females is similar. 2) Although relationship needs correlated more strongly, than did the general needs, with the expressed emotions, R^2 values were not high enough to permit understanding or prediction of these emotions through relationship needs.

Jealousy: Its Emotional Components and its Relationship to Situational Versus General Needs.

Jealousy is usually viewed as a negative reaction to a situation in which the individual perceives a threat to an existing relationship. The degree of perceived threat is dependent on several factors. These factors include one's own attractiveness, perception of the partner's commitment to the relationship, and prior learning from previous similar situations. This negative reaction is also viewed as a function of the significance/value of the relationship.

In general, a clear distinction between jealousy and envy was not an issue until recently. Pines and Aronson (1983) claim that jealousy is evoked when an existing relationship is threatened whereas envy is a result of the desire for something one does not have.

Several distinctions among different types of jealousy also have become a subject for research. Among those is the argument of situational versus dispositional jealousy. White (as cited in Hindy, 1985), claims that jealousy can be chronic when it is a result of, or a reaction to, certain relationship conditions. According to Brehm (1985), there is limited evidence to support the notion of jealousy as a broad band trait. She finds White's "relationship jealousy"

more helpful in understanding this negative emotion within the context of certain relationship conditions.

Davis (1936) makes an interesting distinction between rivalry and trespass as they apply to our society. He suggests that rivalry occurs when two individuals aim to acquire the same thing. According to our society, at this state, feelings of jealousy and animosity are expected to be suppressed and courtesy is the expected norm. But as one rival gains ground, the other's continued rivalry is seen as a form of trespass and jealousy toward the trespasser becomes acceptable, even encouraged.

Among other distinctions are Clanton and Smith's (1977) instinctive (healthy) jealousy versus learned (pathological) jealousy, Sharon S. Brehm's (1985) distinction between "natural occuring jealousy" versus "induced jealousy", and Buunk's (1982) "actual jealousy" versus "anticipated jealousy." These will be elaborated on later in this introduction.

In their book, The Mark of Caine, Marguerite and Willard Beecher (1971) describe jealousy as "a virus", "an infection." They attribute all human failure, plus a whole list of physical ailments, to jealous behavior. Although they make no use of the scientific method to

prove their point, their book is amazingly simple and convincing in its approach. In contrast, Sharon S. Brehm (1985) claims that "jealousy becomes a possible reaction only when a person believes that some other interest poses a threat to the existing relationship" (p. 260). A key factor here is that the relationship has already been in existence.

This introduction will deal with the different components of jealousy as stated in the first definition and will cite pertinent research that will either support or disconfirm the contentions within each component. The material in some of the research articles seems to overlap and include more than one area of the definition. An effort will be made to cite each research in the area that seems most appropriate.

The next part will deal with the situation, how it is perceived by the jealous partner, the variables that effect this perception, the jealous partner's reaction, and some of the available psychological methods of intervention.

The Situation

The jealousy inducing situation, which usually leads to an emotional arousal and the behavioral

reaction to it, may be real and externally triggered, or staged as a manipulation or "test" by the partner.

Sharon S. Brehm (1985) distinguishes between "natural occuring jealousy," which is a natural sequence of events, and "induced jealousy," which is deliberately created with the intent of triggering feelings of jealousy in the partner. In her opinion, induced jealousy creates an interest in the partner that is mainly based on a sense of rivalry rather than genuine feelings toward the partner.

White (1980a) claims that females induce jealousy more often than males, especially females who are more involved in the relationship than their partners.

Brehm (1985) also cites Buunk's (1982) distinction between "actual jealousy" and "anticipated jealousy." The former refers to the emotions elicited by a situation that is actually experienced while the latter describes a person's estimate of his/her reaction to a hypothetical situation. Anticipated jealousy has the potential of being erroneous because when the situation does actually occur, we often do not react the way we may have anticipated. This is an interesting distinction when applied to jealousy studies that make

use of hypothetical jealousy arousing situations in order to verify subjects' actual feelings.

Perceived Degree of Threat

The jealousy inducing situation may be perceived by the individual in an accurate, exaggerated, or repressed/denied manner. Social comparison theory, (Salvoy & Rodin, 1984), maintains that everyone has a need to evaluate his conduct, abilities, and opinions. Since there usually is no objective way to do this, individuals usually judge themselves by comparing themselves to others believed to be of similar conduct, abilities, and opinions. The likelihood that such comparisons are made increases the level of certainty an individual feels as to where he stands. If this is true, it may account for some of the variability in the emotions experienced in romantic jealousy.

Social comparison theory also postulates that the more superior the other is, the less likely the other is to become an object of social comparison. At the same time, once an individual becomes a social comparison referent, that person evokes greater feelings of jealousy if he is perceived as superior. This complex pattern of jealousy, created by such opposing tendencies, indicates that one would tend to feel more

jealous of those at an intermediate level of superiority to oneself. This is all well when we have a say in who is to be the object of our social comparison; however, the triad in a jealousy evoking situation consists of the partners and the object of social comparison who is logically not one chosen by the jealous partner, namely, the one who is doing the comparison. It may be safe to assume that very intense and irrational emotions may be indicative of having a potential rival to the love relationship who is perceived by the jealous partner as far superior to oneself.

Variables that Effect the Jealous Partner's Perceptions

Several other factors seem to interact and affect the degree of perceived threat. Some of them are:

The perception of one's own attractiveness (self-esteem) and the perception of the partner's investment/commitment to the relationship and his vulnerability to seduction. Although loss itself is viewed negatively by the person, it is reasonable to assume that the subjective experience of loss is to some extent dependent on the reasons to which this loss is attributed. White (as cited in Hindy, 1985) proposed that when the loss in a romantic relationship is attributed to being rejected by the partner, the

individual may experience a lowering of self-esteem. It can be argued that low self-esteem in the relationship could lead to increased perceived threat which in turn leads to increased feelings of possible rejection.

Mathes, Adams, and Davis (1985) tested White's contention by comparing the effects of loss to a rival, with loss due to fate, to partner's destiny, and to rejection by the partner. Their results provided general support for White's theory, thus indicating yet another area of interactions that must be reckoned with if an effective understanding of this complex emotion is to be achieved.

Data from a study by Hansen (1983) suggests that men's experience of jealousy is significantly related in a positive manner to their reported degree of marital satisfaction. This study involved 49 men whose average age was 36 years, the mean length of the current marriage was 10.7 years, and 77.6% were married for the first time. His study also involved four hypothetical events in which subjects rated their feelings, from one extremely pleased to eleven extremely threatened. The ratings were correlated with those from marital satisfaction items. Men who indicated greater satisfaction in their relationship also showed stronger

feelings of jealousy. Hansen states "this leads one to question the contention that people who feel insecure about their relationship are more likely to experience jealousy" (p. 365). It seems that Hansen is equating feelings of security within the relationship with feelings of satisfaction about the relationship. The results of this study are interesting in that they seem to support the notion that the greater the value of the relationship, the greater the potential loss and the stronger the feelings of jealousy.

Attribution theory maintains that everyone seeks to interpret behavior. Unfortunately, it has been found that this interpretation, which usually attributes behavior to deep-seated and long lasting personality traits, is often in error because it ignores important situational factors. This "fundamental attribution error" has been suggested to help create the comforting illusion in one's mind that he can predict others' behavior. This has strong implications in jealous situations because, if the jealous partner attributes the attractiveness of the rival to the rival's long lasting personatliy traits rather than to exceptional situational efforts designed to lure the partner away, the partner's vulnerability to seduction will be

perceived as stronger and the subjective distress felt can be unnecessarily and unrealistically potent.

Prior learning from similar previous situations and cultural expectations. Personal experience and the social context seem to be important elements in the way jealousy is both experienced and expressed. Janice L. Francis's (1977) study, which included 15 couples and explored jealousy with regard to exclusivity, low self-esteem, distrust, and dependency, reveals that the differences between the way two individuals may react to the same jealousy evoking situation are usually greater than with the same individual during two different jealousy situations. In other words, she views jealousy as a personal trait rather than a situational construct. She indicates that females' long-time dependency on males, and their correspondingly low self-esteem account for their feelings of displacement, while males' sense of sexual inadequacy is of primary importance and a strong motivation for males to find other partners with whom to reinforce a sense of adequacy. She also suggests that while males deny and repress their awareness of potential jealousy evoking situations, females over-exaggerate these situations and are overjealous of their partners. Francis' reference to

certain social dynamics appears to correspond specifically to our culture.

In a paper entitled "Jealousy and Sexual Property", Davis (1936) asserts that jealousy cannot be studied outside its social context and warns not to assume that our experiences of jealousy are universal. To support his views, he cites differences in feelings of sexual jealousy when men of native races prostitute their wives to civilized men. In fact, these men do not experience such jealousy because they do not view the other man as a rival or trespasser. In other words, it is the subjective feeling of "being wronged" that gives rise to the negative emotions of jealousy while the boundaries of personal property and rights are highly dependent on the norms of our society.

Significance/Value of the Relationship

The value of a relationship appears to be dependent on the extent of the romantic investment and sexual bonding, the degree to which personal needs are being met through the relationship, and the expected likelihood of a new replacement of the relationship.

Despite distinctions between jealousy, rivalry, and envy, Brehm (1985) believes that, in many ways, they are very similar psychological processes which motivate

great efforts to obtain a goal by protecting what we love, obtaining what another has, or competing for what we want. She finds the individual's perception of reality, his self-esteem in the relationship, sexual exclusivity as dictated by culture, and dependency needs on the relationship to be among the major causes for the jealous reaction. She finds dependency needs to be the strongest factor in jealousy since as dependency grows, so does the significance of the loss once the relationship becomes threatened.

Whether in the philosophical approach of the Beechers, or the more complex studies cited in Brehm's chapter on jealousy, the element of human needs as they relate to emotions such as those of jealousy has been almost entirely overlooked. Maslow (as cited in Scarfpin, 1981), identifies such "deficiency" needs as those for love, security, and belongingness, and claims that most individuals fall in love with others who can fulfill such needs for them. He calls this D-love; whereas, B-love is an unselfish type of love that can only be experienced by those few who are self-actualized.

Clanton and Smith (1977) expanded on this by claiming that there is a general tendency to become

dependent on those who fulfill our needs, and as dependency grows, our control over our fate is diminished. This accounts for the feelings of insecurity experienced during the growth stages of love.

Having established that jealousy is more complex than just a reaction to a perceived threat, Brehm (1985) discusses the experience of jealousy as an interaction between threat, relationship self-esteem, and the role of sexual exclusivity. She views males as being more "property oriented". Males become angry and feel flattered that someone else sees their property as valuable. In the face of extreme threat, they look for another relationship to repair their self-esteem. In contrast, females focus on trying to preserve the existing relationship. In face of severe threat, they withdraw from any other relationship.

The Reaction

The emotional reaction can range from non-existent to extreme, while the behavioral aspect of it may be directed at emotional ventilation, protection of the relationship, or retaliation. In some instances, cultural expectations may influence or even dictate a particular behavioral reaction.

Jealousy experiences also seem to have an order in which their dynamics proceed. White (as cited in Hindy, 1985) who proposed in his theory of jealousy that the loss (or anticipated loss) of a romantic partner to a rival leads to the loss (or anticipated loss) of relationship rewards and self-esteem, also stated that the experience is comprised of a series of events. These events begin with the cognitive realization of the loss. At this point, a jealousy threshhold determines the intensity of the emotions experienced. For example, if the threat is perceived to affect sexual exclusivity rather than just time spent together, the threshold may be very low. During the stage of reviewing evidence and counterevidence, catastrophic thinking may evolve. Irrational thoughts lead to intense emotional reactions and negative feelings, the most common of which are anger and depression. Coping with the situation depends on the previous components and has consequences that affect the individual's perception of the threat, the other person involved, and whether or not the relationship continues to be maintained.

Clanton and Smith (1977) make an important distinction between instinctive jealousy and its learned counterpart. They cite evidence of conflicting views

among experts who believe jealousy to be either instinctive or learned, and then claim that both types are possible. They call instinctive jealousy "the jealous impulse" and describe it as a healthy proof of one's caring for another. The denial and repression of the jealous impulse is sanctioned by our society; however, its function of minimizing conflict remains effective. In their opinion, learned jealousy (or pathological jealousy) is part of what they call the jealous response. This is evident in the form of exaggerated demands, violence, crimes of passion, etc. Clanton and Smith find jealousy to be both normal and abnormal, healthy and pathological.

It follows that Clanton and Smith (1977), who identified five areas of gender differences between males and females in the jealous reaction, would be concerned with a maladaptive type of response. They claim that males seem to deny their feelings, express themselves with rage, violence and subsequent depression, while they focus on the sexual activity of their partner, blame the partner or the other person, and become competitive with the other person. Meanwhile, females acknowledge their feelings, express themselves with depression, focus on their partner's

emotional involvement, blame themselves, and attempt to cling to the partner.

Pines and Aronson's (1983) results seem to reveal few gender differences. Their main finding with regard to this was that, unlike males, females "react with more jealousy to all scenarios in which subjects were told that their mate was having an affair" (p. 115). They also seem to believe in monogamy significantly more than males.

Reducing Jealousy Through Psychological Intervention

Efforts aimed at reducing, if not eliminating altogether, this negative emotion appear frequently in the literature. In concluding her chapter, Brehm (1985) suggests that coping constructively implies doing away with the notion that jealousy is a sign of true love - it is a sign of self-love - and reducing the connection between exclusivity of the relationship and personal worth.

In their paper "Jealousy: Intervention in Couples' Therapy," Im, Wilmer, and Breit (1983) discuss eleven techniques for dealing with and treating jealousy in couples therapy. They classify the techniques into categories: straight-forward interventions involving cognitive, rational emotive, and communication

approaches, and systems theory and practice interventions which focus on jealousy as an interpersonal dimension rather than an intrapsychic trait. They conclude that "since no one approach can be applied to every situation involving jealousy, guidelines for selecting a specific method are needed", (p. 218). They offer four guidelines to help determine the choice of direct versus non-direct therapy, and five guidelines to help choose whether to work with the jealous person or his/her partner. Variables such as ability to deal with painful emotions directly, basic trust, subjective discomfort, commitment, and ability to carry out directions are key elements in those therapeutic choices.

Another attempt at finding ways to resolve the negative feeling of jealousy was made by Barrell and Richards (1982) in their experiential study identifying four necessary and sufficient factors that comprise jealousy and allow for a solution to it. They contend that in order for one to become jealous, he must perceive someone as having an experience that he desires, imagine that person enjoying the experience, feel it is difficult for him to have the same experience, and feel that the person having the

experience is not deserving of it. Barrell and Richards cite several suggestions proposed by others for the resolution of jealousy feelings, then go on to refute them as not viable. They conclude that the only way to effectively deal with the negative emotions of jealousy is to believe that the other person is deserving of the experience and develop a sense of relatedness with others whereby their accomplishments become part of one's own. This appears to indicate that perceptual reframing can help alleviate the negative emotion of jealousy. This approach may help the jealous partner get over his/her negative feelings after the relationship ceases to exist. However, sexual exclusivity, which is highly valued in our culture, makes this kind of perceptual reframing inapplicable in a romantic relationship which is expected to continue to exist.

Present Study

A common technique in jealousy research is the use of questionnaires in which subjects are presented with hypothetical vignettes of potential jealousy arousing situations and asked to indicate the intensity or nature of the jealous reaction they would expect to experience in such a situation. As Buunk (1982) has noted, the

"anticipated" jealous reaction elicited by such a hypothetical situation almost certainly differs from the "actual" jealousy triggered by real-life events. In addition, the "anticipated" jealousy reported by the subject who has never had an experience similar to the one in the vignette will certainly differ from that reported by a subject who has had an experience similar to the one in the vignette. In the former case, the subject's response may be a more valid reflection of cultural scripts of jealous reactions than of his own predicted reaction.

A purpose of this study is to attempt to measure the emotional reaction of jealousy in a more realistic manner. An ideal way would be to ask subjects about their feelings at the time these feelings are being experienced. But, since this is not feasible, a compromise is to ask subjects to recall actual jealousy arousing experiences and their reaction to them.

Another purpose of this study is to look at jealousy reactions determined by domain specific personality differences.

In attempting to determine the variables that trigger a jealous reaction, some researchers (Bringle, 1981; Buunk, 1982; Mathes, Roter, & Joeger, 1982) have

emphasized the role of "person" or "dispositional" factors such as low self-esteem. However, as Brehm (1985) has noted, when self-esteem is defined as a general trait, there has been little consistent evidence of a correlation between low self-esteem and jealousy. Others (Pines & Aronson, 1983) have examined the importance of situational and partner factors, yet evidence for this position also has been mixed. Models which allow for the interactive effects of dispositional as well as situational factors seem to have greater promise. For example, Brehm (1985) notes greater consistency in the findings of studies in which self-esteem is defined in terms of the relationship. The study attempts to show, through correlating general and domain specific needs scales, that domain specific needs do indeed exist and may be fairly independent of the individual's general ones.

Furthermore, both scales will be correlated with a set of 51 jealousy related emotions. It is expected that these emotions will correlate more strongly with Hindy's domain specific needs, thus indicating that although certain character traits are stable across situations, situation specific needs can be strong and

different enough to require a set of predictors which are situation specific.

This study will also examine male-female differences in the expressed emotions and predicts that females are more expressive of their feelings. In addition, this study will also attempt to demonstrate that jealous emotional reactions vary across situations both in terms of intensity and content.

Method

Subjects

Data were gathered from 30 males and 75 females with an average age of 24 years. All were enrolled in various psychology classes at the University of North Florida. Whites comprised 85% of the sample with the remainder a variety of ethnic groups.

Subjects were recruited by obtaining permission from the professor of each class for a researcher to go to class and administer the questionnaire at that time. The purpose of the study was explained prior to obtaining the subjects' voluntary informed consent for their participation.

Instrument

The subjects completed three forms.

The ACL. First was the Adjective Checklist by Harrison G. Gough, which includes 300 adjectives that have been factored into 37 scales. Of relevance to this study were the 15 need scales addressed to dispositions that are identified as important in Murray's (1938) need-press theory of personality. These were used in an attempt to determine the subjects' need-related traits.

The jealousy arousing experience. The second form was used to elicit a recall and description of the subjects' two most intense experiences of jealousy. This form consisted of several parts. The first asked the subject to describe briefly, in writing, the occasion which aroused the most intense experience of romantic jealousy, then to list his/her reaction to the situation. The emotional components of the jealousy reaction were assessed by an inventory which asked the subjects to rate on a five point scale the intensity of each of 51 emotions that may have been experienced. These 51 ratings were combined according to Izard, et. al. (1974) and Nowles (1965) to produce intensity ratings on each of 13 composite emotions believed to be experienced in a jealousy evoking situation. These emotions are: Anger, Guilt, Contempt, Fear, Shame, Distress, Disgust, Surprise, Sadness, Aggression,

Fatique, Concentration, and Anxiety. The five point scale allowed subjects to express the intensity with which they experienced each emotion. 0 indicated "very slightly or not at all" and 4 indicated "very strongly".

The recall of actual jealousy evoking situations was believed to help subjects get in touch with their real feelings instead of imagining how they might feel. For the same reason, subjects were asked to describe their actual reactions to these situations.

Subjects repeated this procedure using the second most intense experience of jealousy as their guideline.

Hindy's needs scale. Subjects also were asked to complete an 83 question needs scale developed by Hindy (1985) to assess their needs with regard to an ideal spouse.

These statements were organized into six needs which Hindy (1985) considers pertinent in intimate relationships. These dimensions are: Love and Affection, Independence, Dominance, Physical Comfort, Protection/Dependence, and Recognition/Status. This scale was used to determine subjects' situational needs believed important in predicting and understanding subjects' jealous reaction.

Design

This is a correlational study in which the general Adjective Checklist needs were correlated with the specific needs indicated by Hindy (1985) as characteristic of romantic relationships. This correlation was used to assess the relationship between general needs which are stable and specific needs which, although possibly stable, are also domain specific.

Both needs inventories were also correlated with the list of emotions in order to examine the predictions that situational needs do indeed differ from general needs.

Procedure

After being introduced to each class, either another student, or I, gave a brief description of the study and its purpose prior to distributing the questionnaires. Subjects were told that this study attempted to investigate a possible relationship between certain needs and the corresponding types of jealousy manifested by individuals who exhibit these needs. They were also informed that a copy of the abstract would be pinned on the board at the psychology department for their review after the study was completed. It was made

clear that subjects would not receive individual feedback.

To assure anonymity, all subjects were told to avoid placing their name on any of the forms. They also were informed of their right to skip any questions or sections with which they felt uncomfortable.

To reduce bias by social desireability the subjects were instructed to complete the forms without excessive deliberation and to use their first thoughts and reactions as guidelines. They were further told that negative reactions are a normal part of the range of feelings evoked in a jealousy arousing situation.

The forms were arranged in such a way that subjects began with the Adjective Checklist, then completed the narrative description and rating of the two jealousy arousing situations, and concluded with Hindy's (1985) needs questionnaire. Each form had its own instructions on the first page.

All forms were completed within the class setting. Approximately 60% of the students in each class volunteered for the study except for one class, in which students received a three point bonus for participation. In this class, the participation rate was approximately

90%. The average time it took to complete all three parts was 50 minutes.

Results

Feelings of jealousy and their relationship to general versus situational needs were studied via three measures. Each measure will be discussed below and the correlation between the measures will be presented. Male/female differences will also be presented.

Emotions Related to Jealousy Arousing Situations

One purpose of this study was the use of vignettes of actual situations described by each subject and scales derived from Izard et al (1974) and Nowles (1965) to obtain a detailed delineation of the subjective emotional components of "actual" jealousy experiences. According to these scales, emotions are characterized by feelings of Anger, Guilt, Contempt, Fear, Shame, Distress, Disgust, Surprise, Sadness, Aggression, Fatigue, Concentration, and Anxiety. Table I shows the mean value for each cluster of emotions during the first and second most intense jealousy arousing experiences.

Insert Table I about here

Table I

Mean Emotional intensity Ratings (0 to 4) for Jealousy Experiences A and B

Emotion	Exper A	Exper B	Combined	A & B Correlation
Anger	3.01	2.80	2.91	0.47 ***
Guilt	0.78	0.98	0.88	0.36 ***
Contempt	1.52	1.49	1.50	0.45 ***
Fear	1.33	1.16	1.25	0.34 ***
Shame	1.76	1.54	1.65	0.29 **
Distress	2.22	2.03	2.13	0.23 *
Disgust	1.93	1.82	1.87	0.41 ***
Surprise	1.95	1.68	1.83	0.20
Sadness	1.71	1.57	1.64	0.28 **
Aggression	2.47	2.38	2.42	0.47 ***
Fatique	0.82	0.72	0.77	0.54 ***
Concentratn	1.61	1.65	1.63	0.67 ***
Anxiety	1.57	1.54	1.56	0.30 **
Average	1.72	1.65	1.70	0.39

* p<.05

** p<.01

*** p<.001

As can be seen from the table, emotions keep a fairly consistent hierarchy in both experiences. However, all emotions are toned down in the second experience except for Guilt which has a slightly higher mean. In Table I all emotions show a significant correlation except for Surprise.

Further analyses made use of the ratings of emotions during the first experience of jealousy because these are more intense and the data set is more complete.

In an attempt to establish the independence of the 13 theoretically derived emotion dimensions, the emotions ratings for the first episode were factor analysed using the Principle Components method and an Orthogonal rotation (varimax). Four factors were retained from the total of 13 extracted factors. Table II presents the rotated factor loadings for each of the emotions. The first four factors, which accounted for 69.2% of the variance, were labeled Anger, Distress, Guilt, and Anxiety. Individual factor scores were derived for each of these factors.

Insert Table II about here

Table II

Factor Analysis of the Emotions Orthogonal Transformation Matrix

Emotion	Factor 1	Factor 2	Factor 3	Factor 4
	Anger	Distress	Guilt	Anxiety
Anger	**0.83772**	0.07370	-0.15216	0.10357
Guilt	-0.04505	0.34015	0.62693	0.09054
Contempt	0.069132	0.31056	0.18635	-0.01607
Fear	-0.00450	0.13705	0.05411	**0.90897**
Shame	0.30438	**0.73900**	0.10586	0.08056
Distress	0.03409	0.54183	0.30388	0.33428
Disgust	**0.63454**	0.51098	0.22198	0.09698
Surprise	0.18827	**0.71673**	-0.02656	0.05754
Sadness	-0.06444	**0.64051**	0.53593	0.17518
Aggression	**0.92605**	0.04805	0.11186	0.02458
Fatigue	0.08964	0.05881	**0.80376**	0.01909
Concentratn	0.43821	-0.05499	**0.64328**	0.34242
Anxiety	0.09364	0.15266	0.16448	**0.89436**

Values at or above 0.55 are highlighted

A comparison of the emotional components reported by male and female subjects are presented in Table III. Although the overall average intensity of the emotional reaction experienced by females was greater than that reported by males, ($F, 1, 98=6.33$, $P<.0135$), the profile of emotional intensity was similar, even for the stereotypical masculine emotions of Anger and Aggression. Indeed, the only one of the four factors on which females differed significantly from males was Anxiety ($F, 1, 97=8.47$, $P<.0045$).

The greater intensity of feelings reported by the female subjects was not an artifact due to the checking of a broader range of emotion adjectives. Of the male responses, 35.3% were "0" indicating the emotion was experienced very slightly or not at all, while 32.6% of the female responses were "0". Conversely, 8.4% of the male responses were "4" indicating the emotion was experienced "very strongly" while 19.4% of the female responses were "4". In other words, jealousy emotions elicited a similar range of feelings in males and females, however, females were much more likely than males to rate their reactions as very strong.

Insert Table III about here

Table III

Mean Emotional Intensity Ratings (0 to 4) for Males and Females

Emotion	Males	Females
Anger	2.61	3.04
Guilt	0.86	0.84
Contempt	1.30	1.57
Fear	0.77	1.43
Shame	1.62	1.66
Distress	1.88	2.23
Disgust	1.60	2.01
Surprise	1.77	1.91
Sadness	1.60	1.66
Aggression	2.24	2.49
Average	1.25	1.49

Factor Analysis of All Measures

A principal components factor analysis of the emotion scores, the situation specific needs, and the general needs from the ACL was carried out to uncover any overlap in the various scales and measures. This analysis uncovered 34 factors, eight of which had eigenvalues greater than one, accounting for 75.4% of the total variance. The loadings on these eight rotated factors are presented in Table IV. As can be seen, the emotions load on different factors than the ACL needs, which in turn, load on different factors than the domain specific needs. Thus, these three general measures appear to assess different dimensions.

The ACL needs and the relationship needs were factor analyzed separate from the emotions and the resulting four need factors were used as predictors of the emotions factors. The results of this analysis are presented in Table V. Of the 21 extracted factors, the four with eigenvalues great than one accounted for 74.8% of the total variance. Different ACL needs dimensions contribute to NeedFactors 1 - Affection, 2 - Achievement, and 4 - Heterosexuality, while NeedFactor 3 - Romance, is comprised almost entirely of the domain specific needs tapped by Hindy's Scale.

A separate factor analysis of Hindy's needs scale failed to confirm the independence, of the conceptually based division of the needs into six categories. The factor analysis on the separate analysis were consistant with those of the combined factor analysis shown in Table VI. The categories of Love/Affection, Dominance, Physical Comfort, Protection/Dependency, and Recognition/Status, loaded on the first factor, and Independence loaded by itself on the second factor. Thus, empirically Hindy's scale appears to assess two, rather than six domain specific needs.

Insert Table IV about here

Insert Table V about here

Insert Table VI about here

Table IV

Factor Analysis of All Measures; Rotation Method: Varimax

Emotions	Factor 1	Factor 2	Factor 3	Factor 4
Anger	-0.03214	0.02850	0.04583	**0.80056**
Guilt	-0.04106	-0.05366	0.11461	0.04306
Contempt	-0.013478	-0.10406	-0.01178	**0.72671**
Fear	0.05184	-0.00423	0.20711	0.03136
Shame	-0.18276	0.03471	-0.03472	0.41094
Distress	0.01785	-0.04206	0.19338	0.07082
Disgust	-0.13389	0.00894	0.18012	**0.69245**
Surprise	-0.02565	0.10067	0.04288	0.31239
Sadness	0.0481	-0.02120	0.17460	0.02794
Aggression	0.01274	-0.09324	0.03508	**0.91089**
Fatigue	0.10684	0.02242	0.09767	0.11494
Concentratn	0.23820	0.11086	0.23771	0.43777
Anxiety	0.19216	-0.12131	0.16052	0.14848
Hindy				
LoveAff	0.09876	-0.14814	**0.75773**	0.07390
Indepndnce	-0.09971	0.26000	0.49435	0.33274
Dominance	-0.13679	0.00954	0.53897	0.11721
PhysComf	-0.05893	-0.19255	**0.79792**	-0.03085

table continues

Hindy	Factor 1	Factor 2	Factor 3	Factor 4
ProtDep	0.09493	-0.19159	**0.66113**	-0.02521
RecStat	0.00455	-0.02211	**0.89280**	0.11965
ACL				
Achievemnt	-0.02574	**0.88317**	-0.14320	-0.10389
Dominance	-0.50557	**0.71142**	-0.06343	-0.00575
Endurance	0.35404	**0.81202**	0.00253	-0.19822
Order	0.43255	**0.68840**	-0.02901	-0.17283
Interest	**0.68967**	0.52743	-0.15247	-0.11783
Nurturance	**0.88979**	0.24499	-0.02249	-0.06096
Affection	**0.65137**	0.43618	-0.05596	0.01868
Heterosex'l	-0.01853	0.08831	-0.04361	-0.03590
Ehibition	-0.73468	0.00061	0.01232	0.04898
Autonomy	-0.91324	0.16721	-0.05219	0.05852
Aggression	-0.92772	-0.01986	0.05546	0.00818
Change	-0.89768	-0.61506	0.016690	-0.12883
Succurance	0.06749	-0.80139	0.09483	-0.15994
Abesement	**0.63611**	-0.61506	0.08094	-0.04646
Deference	**0.91132**	-0.12729	0.09430	-0.07490

Emotions	Factor 5	Factor 6	Factor 7	Factor 8
Anger	0.01937	0.06516	0.07067	-0.29247

table continues

Emotions	Factor 5	Factor 6	Factor 7	Factor 8
Guilt	-0.12265	0.14684	0.15628	-0.29247
Contempt	-0.02925	0.10368	0.03688	**0.79053**
Fear	-0.10149	0.13239	**0.87062**	0.06875
Shame	-0.29370	0.45146	0.15323	0.36467
Distress	0.18281	0.77771	0.22417	0.04585
Disgust	0.04001	0.39913	0.09751	0.17251
Surprise	-0.21610	**0.57707**	-0.01758	0.08999
Sadness	0.08769	**0.72244**	0.11527	0.42971
Aggression	0.04870	-0.04199	-0.03065	0.05112
Fatigue	0.28645	0.25127	-0.01168	**0.59092**
Concentratn	0.15705	0.15554	0.18373	0.35650
Anxiety	-0.01492	0.15016	**0.82967**	0.17290
Hindy				
LoveAff	0.04036	0.33510	0.12869	-0.12433
Independence	0.06237	0.03819	-0.27404	0.05295
Dominance	-0.14911	-0.37511	0.15152	0.39013
PhysComf	-0.06785	0.04374	0.15022	0.14249
ProtDep	-0.01901	0.10058	0.39340	-0.00607
RecStat	-0.01901	0.07935	0.01413	0.12570

table continues

ACL	Factor 5	Factor 6	Factor 7	Factor 8
Achievement	0.05848	0.01037	-0.05071	0.01515
Dominance	0.32300	0.04804	-0.10367	-0.09189
Endurance	-0.19019	-0.03640	-0.04895	0.07533
Order	-0.39635	-0.08780	-0.05568	0.05665
Interest	0.07663	0.05965	0.05220	-0.11417
Nurturance	0.32891	0.04857	-0.03658	-0.00737
Affection	0.36308	0.10355	-0.01342	-0.16020
Heterosex'l	**0.81962**	-0.02841	-0.03639	0.11873
Exhibition	0.45670	0.10570	-0.18698	-0.01746
Autonomy	0.06692	0.00225	-0.09054	-0.05974
Aggression	0.13483	0.01382	-0.05238	-0.00856
Change	**0.69595**	0.06527	-0.10612	-0.10289
Succurance	-0.03292	-0.05347	0.02058	0.05482
Abasement	-0.23575	0.02657	0.03990	0.09793
Deference	-0.16847	0.04928	0.03601	0.01578

Values at or above 0.55 are highlighted

Table V

Rotated Factor Loadings of the Two Need Measures

Hindy	Factor 1	Factor 2	Factor 3	Factor 4
	Affection	Achievemnt	Romance	Heterosex'l
LoveAff	0.11545	-0.14526	**0.7678**	0.10326
Independence	0.12126	0.28905	0.49075	0.19549
Dominance	-0.15226	-0.00061	**0.60088**	-0.24946
PhysComf	-0.05210	-0.17371	**0.79788**	-0.10575
ProtDep	0.11888	-0.23058	**0.71190**	-0.14554
RecStat	0.00229	-0.00520	**0.89920**	-0.01768
ACL				
Achievement	0.05191	**0.88538**	-0.15010	0.01493
Dominance	-0.41312	**0.75274**	-0.07298	0.35143
Endurance	0.37855	**0.78956**	-0.03231	-0.30036
Order	0.42976	**0.67491**	-0.05962	-0.48540
Interest	**0.72529**	0.49768	-0.17829	0.00436
Nurturance	**0.85810**	0.19545	-0.04581	0.28524
Affection	**0.72655**	0.39041	-0.08144	0.34878
Heterosex'l	0.07579	0.08763	-0.05357	**0.78240**
Exhibition	-0.68995	0.03253	-0.00159	0.54831
Autonomy	-0.89749	0.21274	-0.05336	0.17306
Aggression	-0.90372	0.02795	0.05729	0.21703
Change	-0.33682	-0.07344	-0.15657	0.77992

table continues

ACL	Factor 1 Affection	Factor 2 Achievemnt	Factor 3 Romance	Factor 4 Heterosex'l
Succurance	0.03079	-0.79995	0.07134	-0.07570
Abasement	**0.58340**	-0.63436	0.09870	-0.29969
Deference	**0.87535**	-0.14361	0.09671	-0.29090

Values at or above 0.55 are highlighted

Table VI

Factor Analysis of the Hindy Needs Scale

Orthogonal Transformation Matrix

Need	Factor 1	Factor 2
LoveAff	**0.75616**	0.20647
Independ	0.00649	**0.95097**
Dominance	**0.48863**	0.41470
PhysComf	**0.85158**	0.13040
ProtDep	**0.86435**	-0.05371
RecStat	**0.71403**	0.56126

The greater value within each need is highlighted.

Correlations of Hindy's needs and ACL needs with the emotions list

One purpose of this study was to use needs, either general or domain specific, to predict jealousy reactions. To ascertain the degree of association between the various need states and the various emotional components of the jealousy experiences, the Emotion factors were correlated with the Need factors. The results presented in Table VII reveal that each of the emotions factors correlated more strongly with Need factor 3 than any of the ACL Need factors.

The four need factors, named respectively: (1) Need for Affection, (2) Achievement, (3) Romance, (4) Heterosexuality, were used as independent variables and regressed against each of the four Emotion factors. Need factor 3 (romance) has higher R values than the other Need factors and thus, accounts for the relatively greatest amount of the variance. However, since the overall R is relatively low (insignificant for two of the four Emotion factors), none of the Need factors, either ACL or Hindy's, account for a large portion of the emotional reaction in jealous situations.

Insert Table VII about here

Table VII

Correlation of Need factors and Emotion factors

	EMOTFAC1 Anger	EMOTFAC2 Distress	EMOTFAC3 Guilt	EMOTFAC4 Anxiety
NEEDFAC1 Affection	-0.11555	-0.15281	0.12701	0.21177*
NEEDFAC2 Achievement	-0.06402	0.05387	-0.07487	-0.15462
NEEDFAC3 Romance	0.14672	0.13902	0.24838*	0.30791**
NEEDFAC4 Heterosex'l	0.12277	0.00040	0.12387	-0.12574

* p<.05

** p<.01

Conclusions and Discussion

Correlation of the emotions expressed in the two experiences of jealousy indicate that with the exception of Surprise, these emotions are inherent in the jealous experience. The average intensity was greater for the first episode than the second. Because correlations between the two experiences are slim, there is evidence that subjects were responding to the two events independently. Since Guilt has a slightly higher mean in the second episode, it is assumed that the possibility that subjects methodically rated the same emotions for the second experience with lower scores seems very slim.

This seems to support Buunk's (1982) distinction between "actual jealousy" and "anticipated jealousy." If the ratings were to be of anticipated jealousy, it may be logically assumed that all emotions would be toned down without an exception. The fact that guilt has a slightly higher mean in the second episode may be due to the fact that when jealousy is very strong, people tend to be more defensive. However, during the second most intense experience, the same person may be more rational and willing to accept responsibility.

Results also show that feelings of Anger, Aggression, and Distress are most characteristic of jealous reactions while feelings of Fatigue and Guilt are relatively uncommon. The saliency of feelings of anger is consistent with the popular notion that jealousy provokes aggressive outbursts and with Pines and Aronson's (1983) finding that verbal assault and sarcasm were listed by subjects as probable coping reactions to feelings of jealousy.

Although female subjects in this study reported the jealousy experience as subjectively more intense than the male subjects, the patterns of emotional reactions in men and women were similar. This finding contradicts some of the stereotypic sex differences in jealousy reported by Clanton & Smith (1977) and is more consistent with finding of limited gender differences reported by Pines & Aronson (1983).

The four factors of Anger, Distress, Guilt, and Anxiety derived from factor analysis of the original 13 components of the jealous emotions seem to capture the essence of feelings commonly associated with the jealous experience. This seems to indicate that the measure used is an adequate one.

Several factors have been claimed to interact in producing jealous emotions and to account for variances in reactions between two people to the same situation. As mentioned in the introduction, in her (1977) study, Janice L. Francis found that the differences between the way two individuals may react to the same jealousy evoking situation is usually stronger than that which occurs with the same individual during two different jealous situations. In other words, she views jealousy as a personal trait rather than a situational construct. Francis does not discuss whether this, assumingly stable trait, is general or domain specific.

The results of the current study tend to lend more support to the domain specific notion, thus indicating that although an individual may react in a specific manner during a jealous situation, his reaction cannot be assumed to generalize to other situations which evoke negative feelings.

Cattell, (cited in Lindzey, 1978), theorizes that any single trait may be the product of hereditary factors, environmental factors, or a combination of the two. He has identified and labeled that which results from environmental influences the "environmental mold trait," and that which results from heredity the

"constitutional trait." This is of interest to this study because the needs inventories used are similar to Cattell's inventory in that they atempt to separate the needs that are constitutional, and, therefore, more stable across situations, from those that are environmental, and, therefore, more domain specific. The current study tends to indicate that domain specific needs are more predictive of an individual's reaction to a jealous situation than his constitutional needs.

Brehm (1985) believes that the individual's perception of reality, his self-esteem in the relationship, sexual exclusivity as dictated by culture, and dependency needs in the relationship to be among the major causes for the jealous reaction. In other words, the unique way an individual views certain factors pertaining to the romantic relationship, affects the intensity of his emotions and shapes that individual's jealous reaction.

Factor analysis of all measures, using the Varimax Rotation Method, revealed that these measures are relatively independent from each other. An arbitrary cutoff value of .55 of the factor index loading was chosen. With this cutoff, each item loaded on one factor only. There was no overlap in any of the items

included in each measure, and the items from each measure loaded on separate factors. This seems to indicate that an individual does experience certain situational needs that are independent of his general needs, and that the measures used in this study seem to tap into these different need sets without overlap.

When the ACL needs and Hindy's needs were factor analyzed, four factors with eigenvalues greater than one, accounting for 74.8% of the total variance further revealed that there is no overlap in the measures. Hindy's needs were contained in NeedFactor 3 labeled the Romantic need.

Factor analysis of the 13 emotions yielded four factors labeled Anger, Distress, Guilt, and Fear. A correlation of these factors with the four need factors reveals that each of the emotions factors correlates more strongly with the Romantic need factor. However, when the four need factors were regressed, as independent variables, against each of the emotions factors, the overall R^2 was relatively low thus indicating that neither the ACL or Hindy's needs account for a large portion of the emotional reaction in jealous situations. It may be concluded from this, that although Hindy's needs measure seems to tap into

emotions that are specific to the jealous situation, more so than the general needs measure, it still needs to be refined before it can be considered a measure which deals exclusively with jealousy emotions.

This seems to indicate that although an understanding of differences in personal needs with regard to romantic relationships may help towards a better understanding of the individual's jealous reaction, many more variables, such as those previously mentioned by Brehm (1985), length of the relationship, and other factors may need to be studied before an adequate prediction of the individual's reaction can be made.

It is concluded that although the jealous response usually involves feelings of Anger and Aggression, and that such feelings are best understood by examining domain specific needs rather than general personality traits, a more detailed delineation of the relevant relationship needs may permit a greater appreciation of the interaction between the unique person factors and the salient situational factors.

It is also concluded that although females report more intense feelings during a jealous reaction, the

pattern of expressed emotions remains significantly similar to that of males.

A limitation of this study is that it uses college students who cannot be said to represent an unbiased sample of the population. It may also be argued that female college students are more expressive of strong emotions such as anger and aggression and thus cannot be said to represent all females.

Future research may lend further understanding of this complex emotion by studying subjects' needs with regard to their present partner rather than the ideal one, and correlating those needs with their "actual" jealous reaction. In other words, just as the use of actual vignettes is believed to enhance the validity of expressed emotions, the same may be true for the validity of domain specific needs if they were studied with regard to the "actual" partner rather than the "ideal" one.

This point may be demonstrated by repeating this study using Hindy's needs questionnaire to include ratings of the needs being satisfied by the present partner.

References

Barrell, J. J. & Richards, A. C. (1982, September). Overcoming jealousy: an experimental analysis of common factors. The Personnel and Guidance Journal, pp. 40-45.

Beecher, M. & Willard. (1971). The mark of Caine: an anatomy of jealousy. Englewood Cliffs, NJ: Prentice-Hall.

Brehm, S. (1985). Intimate relationships. New York: Random House

Bringle, R. G. (1981). Conceptualizing jealousy as a disposition. Alternative Lifestyles, 4, 274-290.

Buunk, B. (1982). Anticipated sexual jealousy: Its relationship to self-esteem, dependency, and reciprocity. Personality and Social Psychology Bulletin, 8, 310-316.

Clanton, G. & Smith, L. G. (1977). Jealousy. Englewood Cliffs: Prentice-Hall.

Davis, K. (1936). Jealousy and sexual property. Social Forces, 14, 395-405.

Francis, J. L. (1977, October). Toward the management of heterosexual jealousy. Journal of Marriage and Family Counseling, pp. 61-69.

Hansen, G. L. (1983). Marital satisfaction and jealousy among men. Psychological Reports, 52, 363-366.

Hindy, C. (1985). Unpublished manuscript, University of Connecticut, Storrs.

In, W., Wilner, S. R. & Breit, M. (1983). Jealousy: intervention in couples' therapy. Family Process Inc., 22, 211-219.

Izard, C. E., Dougherty, S. E., Bloxin, B. M., & Kotsch, W. E. (1974). The differential emotions scale. Unpublished manuscript, Vanderbilt University, Nashville.

Mathes, E. E., Roter, P. M., & Joerger, S. M. (1982). A convergent validity study of six jealousy scales. Psychological Reports, 50, 1143-1147.

Mathes, E. W., Adams, H. F. & Davis, R. M. (1985). Jealousy: loss of relationship rewards, loss of self-esteem, depression, anxiety, and anger. Journal of Personality & Social Psychology, 48, 1552-1561.

Nowles, V. (1965). Research with the mood adjective checklist. In S. S. Tompkins & C. E. Izard (Eds), Affect cognition, & personality. New York: Springer.

Pines, A. & Aronson, E. (1983). Antecedens, correlates, and consequences of sexual jealousy. Journal of Personality, 51, 108-136.

Salvoy, P. & Rodin, J. (1984). Some antecedents and consequences of social-comparison jealousy. Journal of Personality and Social Psychology, 47, 780-792.

Scarfpin, J. A. (1981). Maslow's being and deficiency love: an investigation into self-esteem, autonomy, ego development, and age as variables in loving. Dissertation Abstracts International, 42, 2511-A.

White, G. L. (1980> Inducing jealousy; A power perspective. Personality and Social Psychology Bulletin, 6, 222-227.